

## **Merciful MRSA Management, and Treating Serious Infections 2013 AHG Symposium Proceedings**

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**Description:** Methicillin-resistant *Staphylococcus aureus* (MRSA) is a bacterium responsible for several difficult-to-treat infections in humans; however, *Staph. aureus* is an organism that is considered part of our healthy skin and respiratory flora. This organism is difficult to manage using antibiotics because of its marvelous ability to adapt, yet seemingly simple to manage when we take a different approach using herbal medicine.

**Track:** Intermediate/Advanced

### **Objectives:**

1. Put together an effective strategy and select from four major categories of herbs to treat acute bacterial infection.
2. Understand the severity of an acute infection based on physical exam, signs and symptoms, and know when it is imperative to refer.
3. Identify and employ strategies for preventing re-infection.

### **Four Major Strategies When Using Herbs:**

1. Tan their bacterial hides
  - a. Tannin-rich herbs are known to be bacteriostatic due to their chemical tendency to bind proteins. Bacteria rely on their slimy 'films' in order to reproduce and advance an infection.
    - i. *Quercus spp.* bark
    - ii. *Camelia sinensis* leaf
    - iii. *Theobroma cacao* seed
2. Stimulate an immune arsenal
  - a. Immune stimulating herbs increase macrophage activity
    - i. *Echinacea angustifolia* root
    - ii. *Usnea spp.* thallus
    - iii. *Tabebuia avellanedae* bark
    - iv. *Larrea tridentata* leaf
    - v. *Hypericum spp.* flower
3. Directly kill the bacteria
  - a. Volatile oils are able to penetrate through most cell membranes and walls due to their small molecular weight. They vary in strength and spectrum. The ones that are effective against MRSA will work for a short time only and a variety should be used and

rotated often throughout the course of treatment to avoid the development of resistance.

- i. *Thymus vulgaris*
- ii. *Lavandula angustifolia*
- iii. *Cinnamomum spp.*
- iv. *Oreganum vulgare*
- v. *Satureia Montana*
- vi. *Santalum spicatum*

4. Enhance host resiliency and facilitate adaptation

a. Health is often described as a state of mind. Reaction to stress, including reacting to the diagnosis of MRSA, impacts an individual's ability to successfully beat an acute infection as well as clear a chronic carrier status.

- i. *Panax quinquefolius* root
- ii. *Eleuthrococcus senticosus* root
- iii. *Glycyrrhiza glabra* root
- iv. *Rehmannia glutinosa* root
- v. *Avena sativa* straw & milky seed
- vi. *Schisandra chinensis* fruit
- vii. *Withania somnifera* root
- viii. *Occimum sanctum* herb

### **Evaluating Severity of Infections and Distinguishing MRSA**

1. If you are not an experienced practitioner, it might be of great risk to yourself and others if you choose to treat serious infections on your own. I'm not saying you can't do it... I just caution you to use your intuitive sense and training to "first do no harm" by referring to someone who has more experience than you if it seems like the right thing to do.
2. External presentations of MRSA
  - a. Pustules
    - i. Commonly begins as a moderately angry pimple or boil
    - ii. Surrounding tissue is red, hot to the touch, and expanding
    - iii. Frequently appears as a cluster of boils or large pimples
  - b. Ulcerations
    - i. Begins as a wound
    - ii. May begin as a stasis ulcer
    - iii. Easily spread to other areas of the body by touch
  - c. Styes
    - i. Generally acquired by touching an infected wound or surface and rubbing the eye
    - ii. Involves the surrounding tissue, causing redness that extends to clear borders around the orbit
  - d. Blisters and rashes
    - i. Impetigo

1. Collection of clear blisters overlying red, hot area of skin. Exudes yellow, honeylike serous fluid
2. Usually occurring at nailbeds, scalp, nasal nares, behind ears
- ii. Cellulitis
  1. Diffuse, hot, red, tight area of skin
  2. Usually accompanied by fever
  3. Often with small red bumps
3. Internal presentations of MRSA
  - a. Pneumonia
    - i. Multi-lobar lung involvement
    - ii. Previous exposure to MRSA
    - iii. Preceding influenza or other debilitating illness
    - iv. Culture and Sensitivity is the only way to be sure it's MRSA (takes 48-72 hours)
  - b. Mastitis
    - i. Diffuse, firm, hot, red infection with fever
  - c. Meningitis
    - i. Preceding influenza or other debilitating illness
    - ii. High fever, nausea, vomiting
    - iii. Severe headache
    - iv. Kernig's & Brudzinski's signs
  - d. Urinary Tract Infection
    - i. Worsens with mannose
    - ii. Fever and persistence
  - e. Food Poisoning
    - i. Enterotoxins released in food cause massive immune attack
    - ii. Food is not generally accepted as a source of MRSA infection
  - f. Toxic Shock Syndrome
    - i. Fever and malaise progresses to shock, loss of consciousness, and multiorgan failure as superantigens are released into the bloodstream evoking a massive inflammatory response
  - g. Nosocomial (hospital acquired)
    - i. Most common source of MRSA acquisition
    - ii. 5% of healthcare workers are carriers of MRSA in their respiratory mucosa

### **Strategies for Preventing MRSA Infections from Recurring**

1. Foundations for Health
  - a. Fresh air, clean water, quality food, circadian rhythm, detoxification, laughter, exercise, fulfillment
2. Identify stress thresholds
  - a. What are the first signs of stress?
    - i. Mental confusion, fatigue, sense of overwhelm
    - ii. Anger, irritability, withdrawal

- iii. Eczema, anxiety, insomnia
    - iv. Upper respiratory infection
  - b. What are the likely triggers for immune system dysfunction?
    - i. Overconsumption of sugar, alcohol, certain foods
    - ii. Overworking, sacrificing sleep for other activities
    - iii. Seasonal changes
- 3. Adaptogenic and immunomodulating herbs
  - a. *Panax quinquefolius* root
  - b. *Eleuthrococcus senticosus* root
  - c. *Glycyrrhiza glabra* root
  - d. *Rehmannia glutinosa* root
  - e. *Avena sativa* straw & milky seed
  - f. *Schisandra chinensis* fruit
  - g. *Withania somnifera* root
  - h. *Occimum sanctum* herb
  - i. *Ganoderma lucidum* fruiting body
  - j. *Lentinula elodes* fruiting body
  - k. *Grioffola frondosa* fruiting body
  - l. *Trametes versicolor* fruiting body
  - m. *Astragalus membranaceus* root
- 4. Probiotics and prebiotics
  - a. Garlic baths sound strange and unpleasant, yet it is an effective strategy in reducing *Staph. aureus* colonization of the skin
  - b. After a bath, dust the skin while still fairly damp with powdered *Acidophilus* product mixed 1:1 with an agreeable body powder (cornstarch, talc, clay, baking soda, marshmallow root powder, etc)
  - c. Use a powdered probiotic mixed with a half-ounce of water as a 'swish-and-swallow' mouth rinse to effectively colonize the respiratory tract
  - d. Use large doses of reflex demulcent herbs at the first sign of respiratory, urinary, or digestive irritation as prebiotics, mucus membrane enhancers, and immunomodulators
    - i. *Althaea officinalis* root
    - ii. *Ulmus fulva* bark
    - iii. *Glycyrrhiza glabra* root (DGL)
    - iv. *Inula helenium* root
    - v. *Helianthus tuberosus* root

## Resources:

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